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EXAMINER

BAYOU, AMENE SETEGNE

ART UNIT	PAPER NUMBER
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3746

MAIL DATE	DELIVERY MODE
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10/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,276	Applicant(s) MICHELS ET AL.	
	Examiner AMENE S. BAYOU	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/23/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it contains the word "means" in line 7. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claim 6 is objected to because of the following informalities: claim 6 recites "that e tubing". We assume this is a typographical error and the applicant rather intends to say "that the tubing". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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Claim 13 recites “the tubing bed member coaxially enlases the rotor by an amount of 360 degree divided by the number of conveyor rollers. But as can be seen clearly in figures 1-3 ,body member (25) enlases the rotor more than 180 degrees, which is greater than 120 degree. Thus the claim is not enabled. For the purpose of examination we understood the phrase to mean “the tubing bed member coaxially enlases the rotor by an amount greater than 180 degrees”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 8,12,14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In re claim 8 it recites “ by the mutual force action of the squeezed tubing section and the squeezed tubing section”. The phrase is confusing. Based on the disclosure and for the purpose of examination we understood the phrase to mean " by the mutual force action of the squeezed tubing section”. Appropriate correction is required.

8. In re claim 12 it recites “the particular tubing section”. It is not clear what “the particular tubing section” is and thus the claim is indefinite. Appropriate correction is required.

9. In re claim 14 it recites a range “approximately 240 degree” within another range “210 degree to 270 degree “which makes it indefinite. Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1,2,4-6,12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ledebuhr et al. (US patent number 5846061).

12. In re claim 1, Ledebuhr et al. '061 disclose a metering pump including:

- Peristaltic pump (10) in figures 1-3, with a rotor (22) received in a housing (14), which is provided with at least one rotatably supported conveyor roller (26), as well as with a tubing holder (16b) for receiving of at least one flexible tubing section (62) that is squeezable by the conveyor roller (26) for peristaltically conveying a medium, characterized in that the tubing holder (16b) is provided with a tubing bed body member (28) for receiving of at least one flexible tubing section (62), whereby the inlet and/or the outlet region of the tubing bed body member (28) is designed such that the cross sectional area of the tubing relevant for the conveying is continuously decreased and increased (clearly seen in figure 3), respectively, by the conveyor roller (26) rolling over the particular tube section (62).

13. In re claim 2, Ledebuhr et al. '061 disclose a metering pump including:

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- The tubing bed body member (28), in the inlet region, passes over from the convex shape to a concave shape in a smooth transition, as seen in the sense of rotation, in figure 3.

14. In re claim 4, Ledebuhr et al. '061 disclose a metering pump including:

- At least two conveyor rollers (26) are provided, and that, with regard to the axis of rotation of the rotor (22), the inlet region is located with regard to the outlet region such that, if one of the conveyor rollers (one of the 3 rollers) is in the inlet region, another conveyor roller (one of the 3 rollers) simultaneously is in the outlet region (clearly seen in figure 3).

15. In re claim 5, Ledebuhr et al. '061 disclose a metering pump including:

- The tubing bed body member (28) is designed essentially in the shape of an omega. Please note that the shape of the tubing bed member (25) of the applicant shown in figure 3 is not different from that of Ledebuhr et al. '061 shown as (28) in figure 3.

16. In re claim 6, Ledebuhr et al. '061 disclose a metering pump including:

- The tubing bed body member (28) at least partially and coaxially enlaces the rotor (22), in figure 3.

17. In re claim 12, Ledebuhr et al. '061 disclose a metering pump including:

- The particular tubing section (62) is led into and out of the tubing bed body member (28) in substantially tangential direction (clearly seen in figure 3).

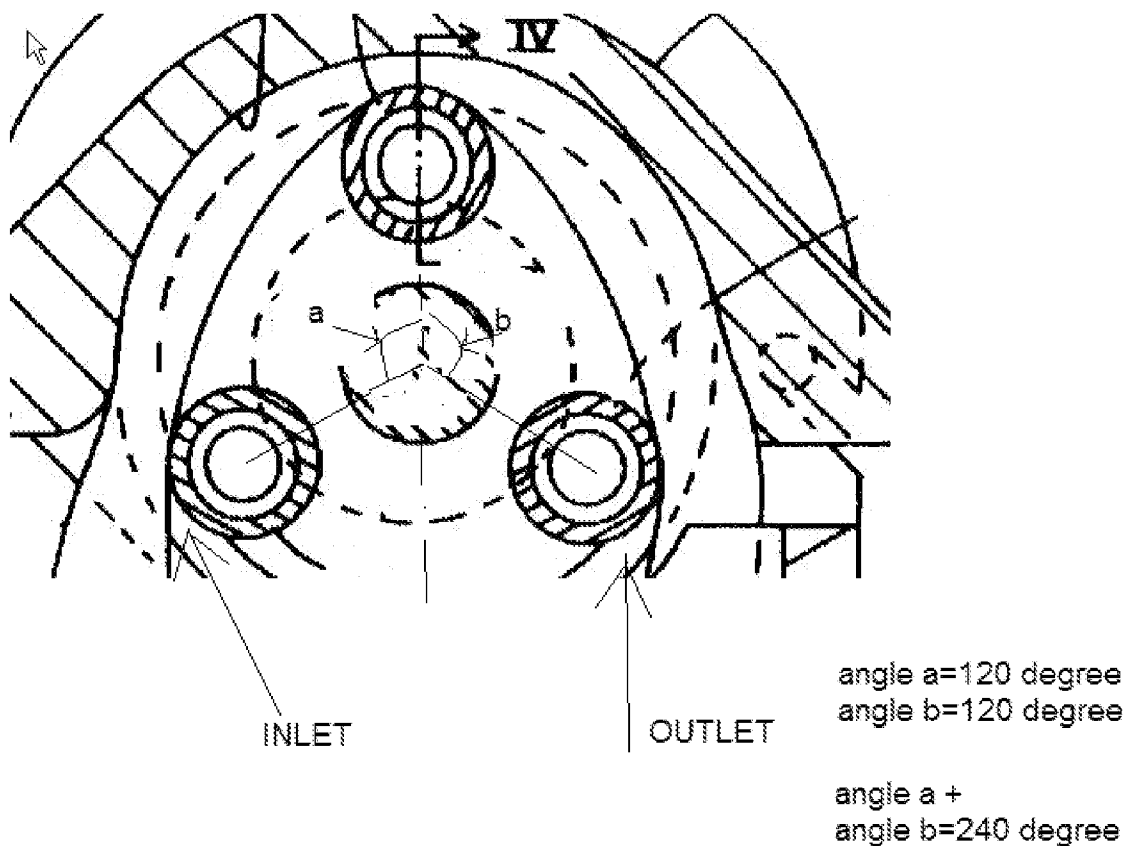
18. In re claim 13 (as best understood), Ledebuhr et al. '061 disclose a metering pump including:

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- The rotor (22) is provided with at least two conveyor rollers (26), and that the tubing bed body member (28) coaxially enlaces the rotor (20) by an amount greater than 180 degrees ,in figure 3.

19. In re claim 14, Ledebuhr et al. '061 disclose a metering pump including:

- The rotor (22) is provided with three conveyor rollers (26), and the inlet portion (see figure below) is offset around the axis of rotation of the rotor (22) with regard to the outlet portion (see figure below) by 210.degree to 270.degree, in figure 3.



Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ledebuhr et al. '061.

22. In re claim 3 and 15 Ledebuhr et al. '061 disclose the claimed invention except mentioning that the tubing bed body member in the outlet region passes over from a concave shape to a convex shape in a smooth transition. It would have been obvious to one skilled in the art to shape tubing bed body member to have a concve-convex transition at the tube outlet area in order to avoid sharp turns/edges and thus tearing of the tubing.

23. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ledebuhr et al. '061 in view of Davis et al. (US patent number 7118203).

24. In re claim 7, Ledebuhr et al. '061 as applied to claim 2 disclose the claimed invention including:

- The tubing bed body member (28), together with a support frame (16a,16b), constitutes the housing of the pump (clearly seen in figure 1), whereby the

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tubing bed body member (28) has two legs at its end (left and right ,as shown in figure 3).

But Ledebuhr et al. '061 fails to disclose:

- The two legs of the tubing bed member are resiliently elastic in radial direction and provided with notch elements, by means of which the tubing bed body member can be snapped into cut-outs on the support frame in the sense of a snap-on connection.

However, Davis et al.'203 teaches a peristaltic pump including:

- The two legs (140,142) ,in figure 8,of the tubing bed member (62) are resiliently elastic in radial direction (column 8,lines 49-60) and provided with notch elements (clearly seen in figure 7) , by means of which the tubing bed body member (62) can be snapped into cut-outs on the support frame (64) in the sense of a snap-on connection (figure 6 and 7).

25. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pump of Ledebuhr et al. '061 by including elastic snap on connection as taught by Davis et al.'203 for ease of assembly.

26. In re claim 8 (as best understood) , Ledebuhr et al. '061 in view of Davis et al.'203 disclose the claimed invention:

Davis et al.'203 disclose:

- The tubing bed body member (62) is designed such that its dimensional stability and fixation at the support frame (64) is supported, in addition to the elastically

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resilient (column 8, lines 49-60) inherent tenseness of the legs (140, 142), by the mutual force action of the squeezed tubing section (46).

27. In re claim 9, Ledebuhr et al. '061 in view of Davis et al.'203 disclose the claimed invention:

Davis et al.'203 disclose:

- The tubing bed body member (62) is provided with a plurality of radially and/or axially extending reinforcing ribs (clearly shown in figure 8 and 9).

28. In re claim 10, Ledebuhr et al. '061 in view of Davis et al.'203 disclose the claimed invention:

Davis et al.'203 disclose:

- The inner side of the tubing bed body member (62) is provided with a multitude of groove-like recesses (150) for receiving and guiding a plurality of tubing (46), in figure 6 and 8.

29. In re claim 11, Ledebuhr et al. '061 in view of Davis et al.'203 disclose the claimed invention:

Davis et al.'203 disclose:

- The particular conveyor roller (92) is in the shape of a barrel and extends in axial directions over the groove-like recesses (clearly seen in figure 5).

Conclusion

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amene S. Bayou whose telephone number is 571-270-3214. The examiner can normally be reached on Monday-Thursday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746